Listing of Claims and Amendments thereto:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Proposed Claim Amendments

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1. (Currently Amended) In a system having a base station transmitter for transmitting data blocks to one or more mobile stations over a radio link, a method for determining a transmit power level at which to transmit a current block, comprising the steps of:

(a) receiving a quality measurement from a mobile station indicating an average radio link quality over a given measurement interval for a previous group of blocks, wherein not all of the blocks of the previous group of blocks were necessarily transmitted at the same transmit power level;

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(b) determining a transmit power attenuation level for ~~the~~ each current block of a subsequent group of blocks as a function of a minimum of a first attenuation factor and a second attenuation factor, based in part on the received quality measurement over the given measurement interval; and

(c) for each current block of the subsequent group, subtracting the transmit power attenuation level from ~~an initial~~a given transmit power level used for transmitting one of more of the blocks of the previous group to determine the transmit power level for ~~the~~ that current block.

2. (Original) The method of claim 1, wherein the system is a general packet radio service (GPRS) system.

3. (Currently Amended) The method of claim 2, wherein the system has Mode A and Mode B power control modes, and the ~~initial~~ given transmit power level is a Mode A maximum transmit power level.

4. (Original) The method of claim 3, wherein the Mode A maximum transmit power level is a broadcast common control channel transmit power level minus a P0 power level

assigned to the mobile station during establishment of a downlink temporary block flow (TBF).

5. (Original) The method of claim 1, wherein:

the current block is to be transmitted on timeslot *j*; and

the quality measurement indicates the average radio link quality over the previous group of blocks also transmitted on timeslot *j*.

6. (Currently Amended)) The method of claim 1, further comprising ~~the further step of~~ transmitting the current block at the transmit power level.

a1 7. (Currently Amended) The method of claim 1, wherein step (a) ~~comprises the steps of:~~ further includes, during transmission of a last block of the previous group of blocks, polling the mobile station for the quality measurement by setting a poll bit in the last block.

8. (Currently Amended) The method of claim 1, wherein:

~~the~~ a current block of the subsequent group is to be transmitted on timeslot *j* at time *n*;

the quality measurement indicates the average radio link quality over the previous group of blocks also transmitted on timeslot *j*; and

step (b) ~~comprises the steps of~~further includes, for each current block of the subsequent group:

(1) ~~(1) determining~~calculating the first attenuation factor, the calculated first attenuation factor ~~a radio link attenuation level~~ $\Delta_{RLC}^{(m)}$ ~~for the current block based on the quality measurement, wherein the radio link attenuation level is~~represented as a radio link attenuation level indicating the downlink attenuation level ~~that~~ the mobile station can tolerate while still achieving an acceptable bit error rate;

(2) calculating the second attenuation factor, the second attenuation factor represented as ~~determining~~ an uplink control flag attenuation level $\Delta_{USF}(j,n)$ ~~for the current block which indicates~~indicating the estimated additional downlink attenuation that can be applied such that adequate uplink state flag (USF) performance is achieved; and

(3) determining the transmit power attenuation level $\Delta(j,n)$ ~~for the current block~~ by taking the minimum of the radio link attenuation level and the uplink control flag.

Q1 9. (Currently Amended) The method of claim 8, wherein:

step (b)(2) ~~comprises the step of~~ includes setting the uplink control flag attenuation level to a maximum attenuation level, if there are no active uplink temporary block flows (~~TBFs~~ TBFs)on ~~the~~ timeslot *j*.

10. (Currently Amended) The method of claim 9, wherein the radio link attenuation level $\Delta_{RLC}^{(m)}$ is determined in accordance with an optimal radio link attenuation level Δ^{*} and an effective attenuation level $\Delta_{eff}^{(m)}$.

11. (Currently Amended) The method of claim 10, wherein:

the effective attenuation level $\Delta_{eff}^{(m)}$ is determined ~~in accordance with the following equation~~based on a fraction of blocks sent at a given attenuation level to the mobile station over the given measurement interval:

$$\Delta_{eff}^{(m)} = \frac{\ln\left(\sum_i p^{(m)}(\Delta_i)e^{\alpha\Delta_i}\right)}{\alpha};$$

the optimal radio link attenuation level Δ^{*} is ~~determined~~estimated ~~in accordance with the following equation~~based on a target bit error rate for the mobile station, a mean BER experienced by the mobile station and the effective attenuation level;

$$\Delta^* = \frac{\ln(BER^*) - \ln(\overline{BER}^{(m)}) + \ln\left(\sum_i p^{(m)}(\Delta_i)e^{\alpha\Delta_i}\right)}{\alpha}$$; and

the radio link attenuation level $\Delta_{RLC}^{(m)}$ is determined ~~in accordance with the following equation~~based on the effective attenuation level and a confidence factor representing the confidence is the estimated optimal radio link attenuation level~~:~~.

~~$$\Delta_{RLC}^{(m)} \leftarrow \Delta_{eff}^{(m)} + p \cdot (\Delta^* - \Delta_{eff}^{(m)})$$~~

12. (Currently Amended) The method of claim 10, further comprising ~~the further steps of~~:

caching, at the end of a downlink TBF for the mobile station, the radio link attenuation level and the time that the radio link attenuation level was last updated;

at the beginning of the next TBF for the mobile station, retrieving said cached information and decreasing the cached radio link attenuation level to account for elapsed time; and

setting an initial radio link attenuation level for said next TBF in accordance with said cached radio link attenuation level.

13. (Currently Amended) The method of claim 8, wherein step (b)(2) ~~comprises the step of~~ includes incrementing the uplink control flag attenuation level if, in a specified previous number of blocks, there have been no new uplink TBFs and no USF flag errors and no changes in the uplink control flag attenuation level..

14. (Cancel) The method of claim 1, wherein step (b) comprises the steps of:

(1) determining a radio link attenuation level for the current block based on the quality measurement, wherein the radio link attenuation level is the downlink attenuation that the mobile station can tolerate while still achieving acceptable error rate;

(2) determining the transmit power attenuation level for the current block in accordance with the radio link attenuation level.

15. (New) A method for determining a transmit power level for each block of a group of blocks to be transmitted to a mobile station, comprising:

calculating, based on measurements of a previous group of blocks reported by the mobile station over a given measurement interval, a first attenuation factor indicating a downlink attenuation level the mobile station can tolerate while still achieving an acceptable bit error rate;

calculating a second attenuation factor indicating an estimated additional downlink attenuation to be applied to the first attenuation factor; and

determining the transmit power attenuation level by taking the minimum of the first and second attenuation factors.

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16. (New) The method of claim 15, wherein

the first attenuation factor is a radio link attenuation level in the downlink the mobile station can tolerate while still achieving the acceptable bit error rate; and

the second attenuation factor is an uplink control flag attenuation level indicating the estimated additional downlink attenuation to be applied to achieve adequate uplink state flag (USF) performance.

17. (New) The method of claim 16, wherein

each block of the group is to be transmitted on a timeslot *j* at a time *n*, and

calculating the second attenuation factor includes setting the uplink control flag attenuation level to a maximum attenuation level, if there are no active uplink temporary block flows (TBFs) on timeslot *j*.

18. (New) The method of claim 16, wherein

calculating the first attenuation factor further includes determining the radio link attenuation level based on an effective attenuation level and an optimal radio link attenuation level,

the effective attenuation level being determined based on a fraction of blocks sent at a given attenuation level to the mobile station over the given measurement interval,

the optimal radio link attenuation level being estimated based on a target bit error rate for the mobile station, a mean BER experienced by the mobile station and the effective attenuation level.

19. (New) The method of claim 18, wherein the radio link attenuation level is determined based on the effective attenuation level and a confidence factor representing confidence in the estimated optimal radio link attenuation level.

20. (New) A method by which a base station determines a transmit power level for transmitting each block of a group of blocks in the downlink, comprising:

receiving, from a mobile station, a measurement report for a previous group of blocks over a given measurement interval;

calculating, for each current block of a subsequent group of blocks to be transmitted, compensations to be made to transmit power level for each current block as a function of a minimum of two attenuation levels; and

transmitting each block based on the minimum of the two attenuation levels.

21. (New) The method of claim 20, wherein,

determining a first attenuation level of the two attenuation levels, the first attenuation level representing a maximum attenuation level required to meet adequate uplink state flag (USF) performance; and

determining a second attenuation level of the two attenuation levels, the second attenuation level representing a maximum attenuation level used so that the mobile station receiving data sees suitable error rate performance.

22. (New) The method of claim 21, wherein determining the second attenuation level includes determining the second attenuation level based on a quality measurement reported by the mobile station.

23. (New) The method of claim 21, wherein determining the second attenuation level includes determining the second attenuation level based on a desired link quality for the base station for downlink transmission.

24. (New) The method of claim 21, wherein determining the second attenuation level includes estimating an optimal second attenuation level based on different power levels used to transmit a particular block of a previous group of blocks over the measurement interval.

25. (New) The method of claim 24, wherein said estimating includes using a compensation factor that compensates for different power levels used to transmit a particular block over the measurement interval.

26. (New) The method of claim 24, wherein determining the second attenuation level includes determining the second attenuation level based on a factor which quantifies a confidence in the optimal second attenuation level estimate, the factor based on one of the different transmit power levels used for transmitting the previous group of blocks over the given measurement interval, and whether the estimated optimal second attenuation level indicates that transmit power should be increased or decreased.